

Embracing the Power of Cloud Computing with ClearPath®

Steve Koss
Distinguished Engineer and Global Lead, PSS



An abstract graphic in the top-left corner consisting of a series of green lines that form a curved, grid-like pattern, resembling a stylized 'U' or a series of overlapping arcs.

01

ClearPath® Software Series

Software Series Overview

ClearPath® Software Series Highlights

Leverage

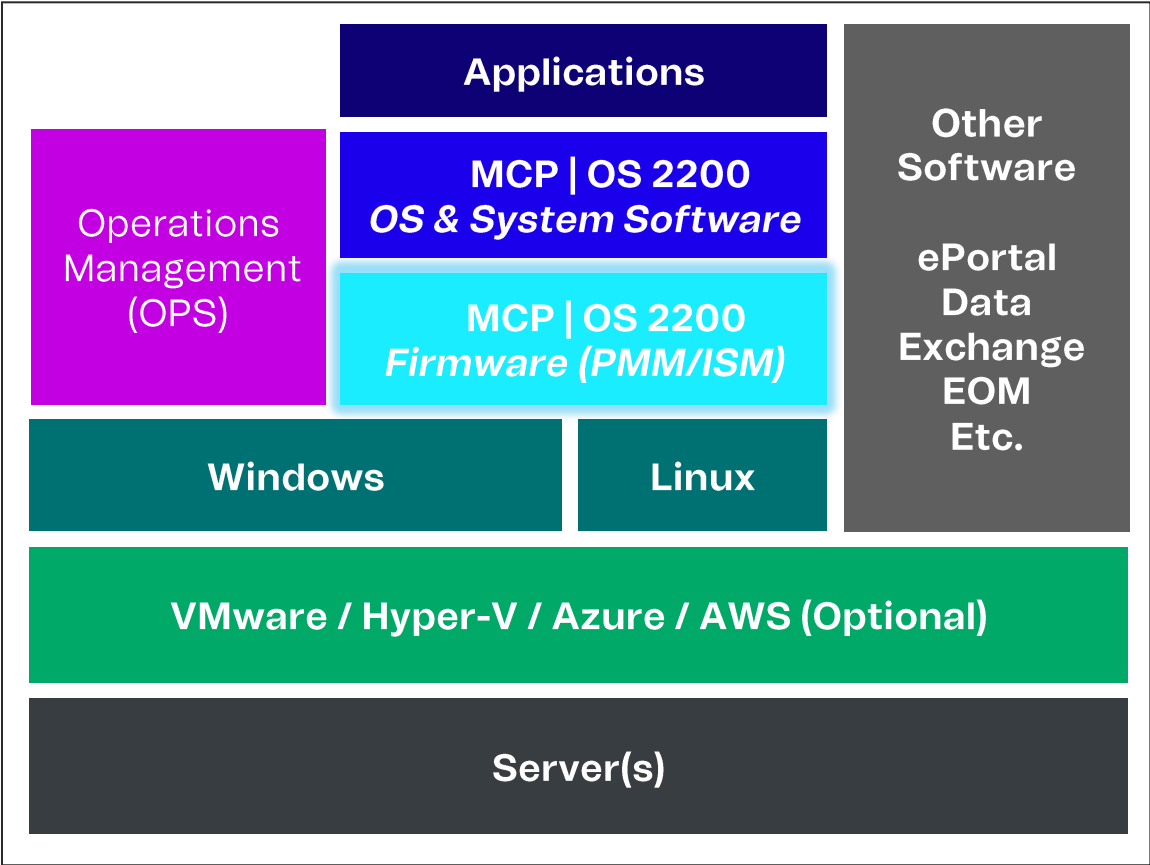


Deployment Choices



MCP: 2024
OS 2200: 2025

Software Series Architecture



02

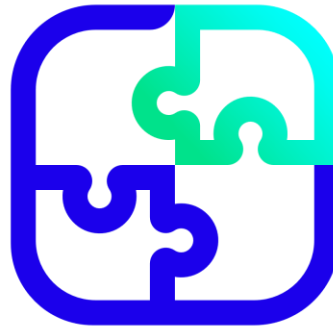
Running ClearPath® on the Public Cloud

Moving your ClearPath® Environment
to the Cloud

Why do you want to move to the cloud?



Cost Savings



Integration / Resiliency



Strategic Direction

Good News: Everything just runs – no code conversion*

Things to Consider:

Data

- OK to move data offsite?
- Regulations, Auditors
- Policies, etc.
- Encryption
 - Data-at rest
 - Data-in-motion

Management

- Who is doing the cloud / CPF ops / admin?
Access to the systems/data?
- Are you using CSP?
- Rules or regulations about Contractors, Off-Shore, etc.
- Added security restrictions

Access

- Getting to/from Azure/AWS (End users / Clients / Public)?
- Directly connected to the Internet
- Via your Intranet
- Understanding the security implications, monitoring, etc.



Performance

What you need to know

Selecting a Virtual Machine:

Azure VM

AWS EC2 Instance



Requirements / Recommendations are in the:
Software Series Compatibility Guide
Software Series Best Practices Guide

Google:

Unisys MCP Compatibility Guide 5.0
Unisys MCP Best Practices Guide 5.0
Unisys OS 2200 Compatibility Guide 3.0
Unisys OS 2200 Best Practices Guide 3.0

Ex: Must be INTEL Xeon not AMD or Graviton

Required/Recommended: Cores, Memory, Settings, ...

Question: What is my performance requirement?

New VM are rolled out over time.

Selecting the right disk types, sizes options, etc..

Defined in the Compatibility / Best Practices Guides

- In the cloud: DISK PERFORMANCE = MONEY!!!!
- Disk type and size will affect performance (Latency, IOPS, Throughput)
- Do you need replication: Asynchronous / Synchronous?
- Consider: Production, Dev/Test, and VTL Storage

Buzz words for later:

AZURE:

Managed Disk - Premium, Premium v2, Bursting, VM Cache, LRS, ZRS, ASR

AWS:

EBS - gp3, io2, DRS





Security and Network

What you need to know

Security Considerations



Use MFA to access
Azure or AWS Portals /
Role Based Access



Protect the Windows (MCP)
or Linux (OS 2200) vNIC / IP
Address on the ClearPath
Software Series VM



Limit access to ClearPath
Management and
Administration



Zero Trust:
Compile list of Port / IP
Address Pairs to allow



Are All Network
Connections Encrypted?



Consider OS Data at
Rest Encryption
(Disk / File / Database)



Consider a Cyber
Recovery Vault

Chart of VM + Storage + Network - MCP

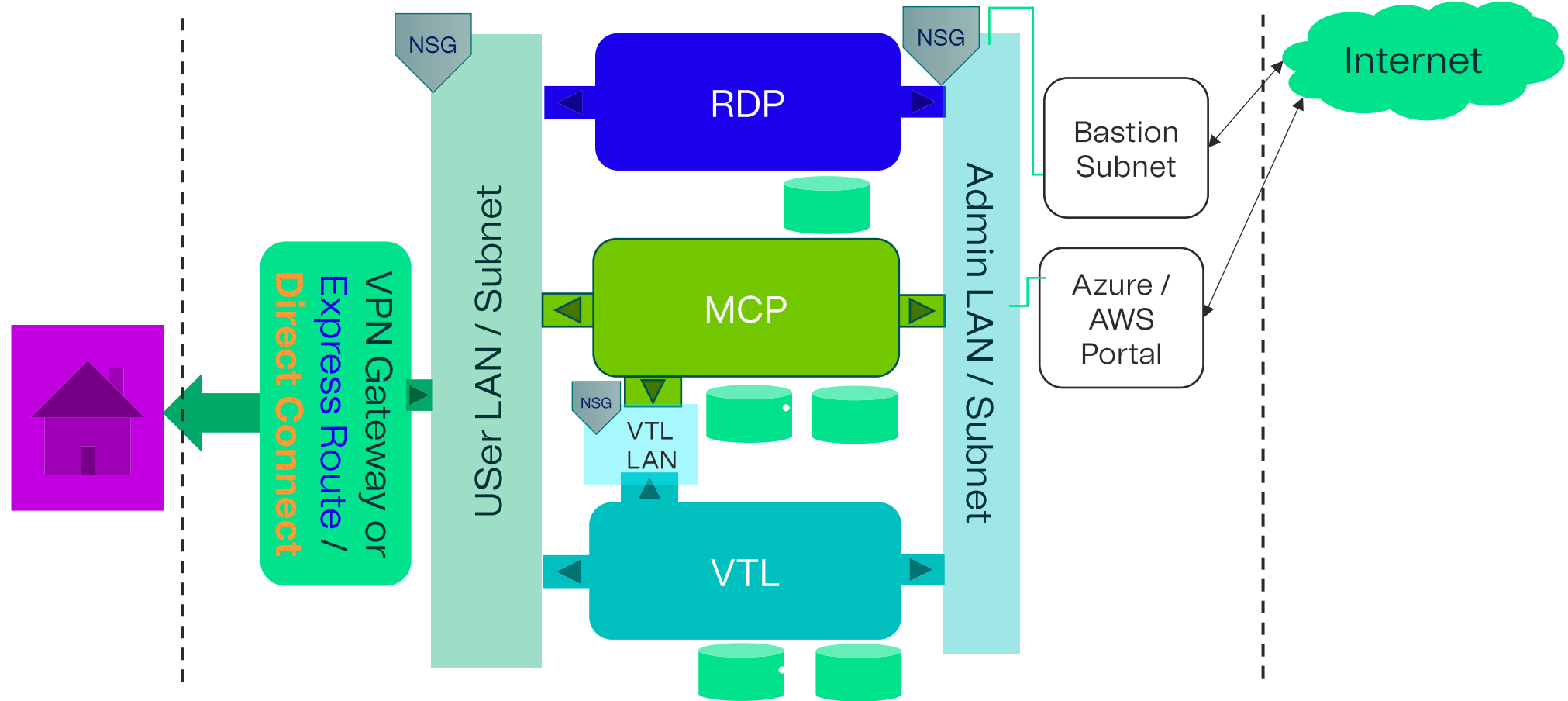
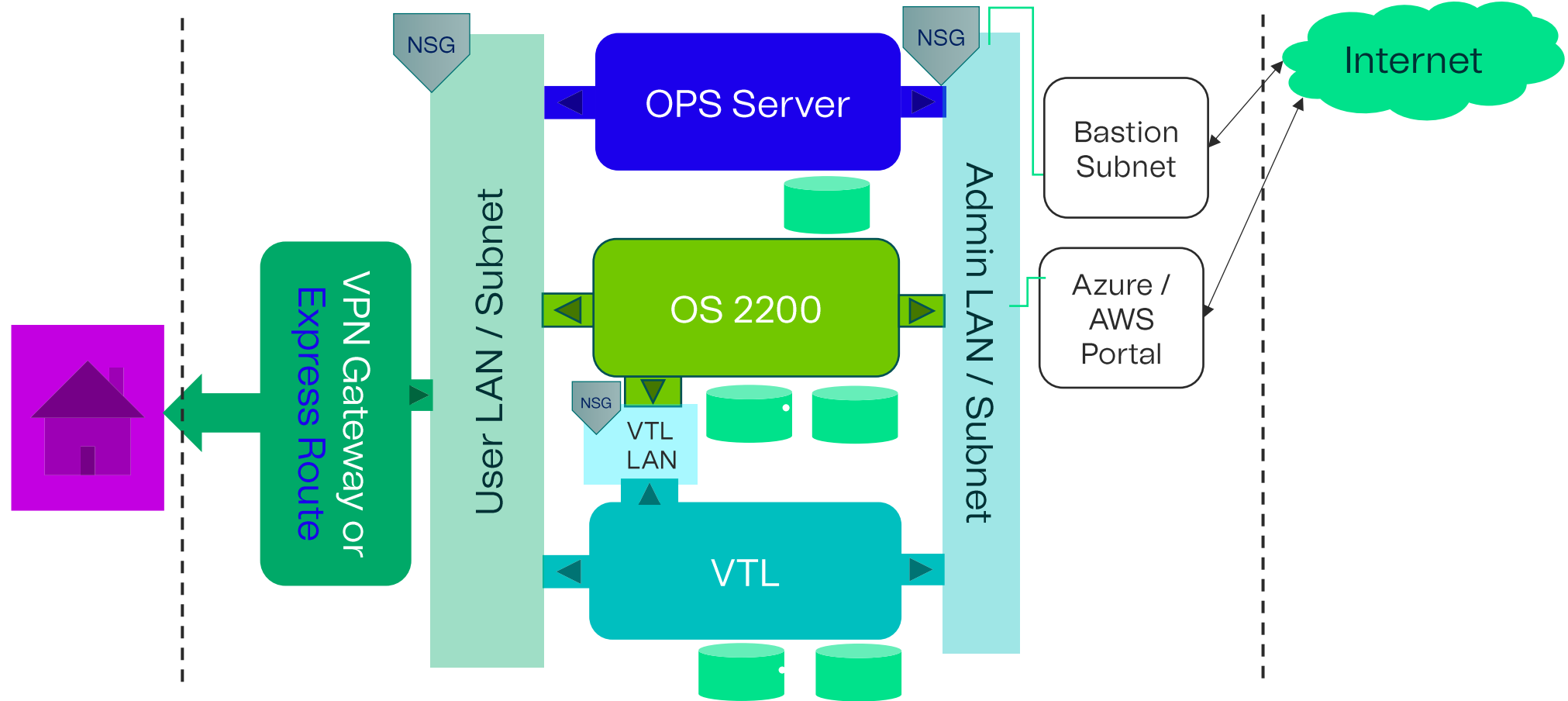


Chart of VM + Storage + Network – OS 2200





High Availability and Disaster Recovery

What you need to know

Setting up for HA and DR Recommendations & Experience

HIGH AVAILABILITY

- Cloud Infrastructure naturally comes with HA
 - Azure and AWS: VM SLA: 99.95%
 - Azure and AWS will move a VM from failed Hardware to another server, potentially proactively
 - With the right storage, it is highly reliable:
 - Azure: Premium SSD, Premium SSD v2 (11 – 9's)
 - AWS: io2 - 99.999% availability

DISASTER RECOVERY

- A secondary Region for DR Failover
 - Automated Tooling with Asynchronous Replication:
 - Azure: ASR (MCP now, OS 2200 soon)
 - AWS: DRS (MCP now, OS 2200 in 2025)
- Azure: ZRS (Premium SSD or Standard SSD)
 - Synchronous replication across Availability Zones in a single region
 - Can be combined with ASR





03

ClearPath® Running *in* the Public Cloud

Taking advantage of Cloud Services
and Cloud Capabilities



Client Experiences Integrating CPF *in the Cloud*

Azure Infrastructure Services

- Azure Sentinel, Defender, Log Analytics, Network Watcher, Azure Backup

Cyber Recovery Vault

- Build immutable backup copies in Cloud
- Data Validation

AB Suite

- Azure DevOps Service (Free with VS Subscription)
- Temporary AB Suite Build Server to install and test new AB Suite Versions / IC / etc.

Developer Studio

- No need to lose Development/Test in a DR event
- Spin up / Spin Down for testing – Templates (Easier in future releases - Licensing)

ClearPath ePortal

- Native Cloud Implementation (Example: uses Scale Sets)
- Web Services via REST API

Data Exchange

- Azure Event Hub via Kafka (DE 8.0)

Enterprise Output Manager (DEPCON)

- Create PDFs, Web Pages, Email

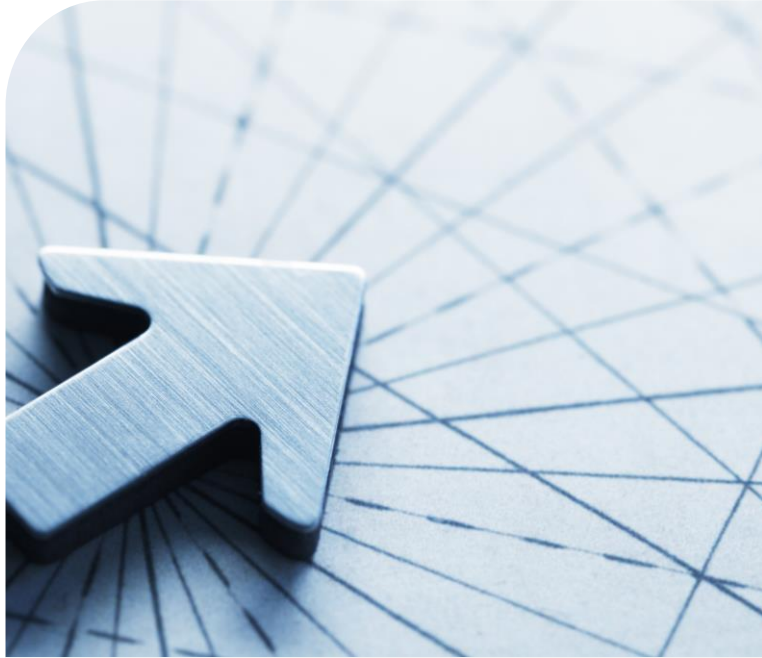


Unisys ClearPath® Services Cloud Services

How we can help



Guiding you through your Cloud Journey



Cloud Advisory Services



Cloud Transition Services



Cloud Management Services

Questions



unisys.com

© 2024 Unisys Corporation. All rights reserved.

The Information contained in this document is confidential and commercially sensitive. In consideration of the receipt of this document, recipient agrees not to reproduce or make this information available in any manner to any third party or any person who does not have immediate responsibility for evaluation of its contents. All brands and products referenced in this proposal are acknowledged to be trademarks or registered trademarks of their respective owners.

Further, the information contained herein is accurate to the best of Unisys' knowledge at the time of publication. In no event shall Unisys have any liability whatsoever whether in contract, tort (including negligence or negligent misstatement) or under statute for any inaccurate or incomplete information contained in this document. Any information provided herein is based on relevant information available at the present time and is only an estimate. Any prices contained in this document are and subject to change. Unisys' offer is provided on a "subject to contract" basis. The Customer and Unisys will not become legally bound to each other unless and until a formal written contract has been executed on behalf of both parties by their respective authorized representatives.

